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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/749,891	12/31/2003	Timothy W. Foley	FOT-10002/44	8907
25006	7590	08/01/2006	EXAMINER	
GIFFORD, KRASS, GROH, SPRINKLE & CITKOWSKI, P.C PO BOX 7021 TROY, MI 48007-7021			PETRIK, KARI KRISTEN	
			ART UNIT	PAPER NUMBER
			3743	

DATE MAILED: 08/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/749,891

Applicant(s)

FOLEY, TIMOTHY W.

Examiner

Kari Petrik

Art Unit

3743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 21-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
- Paper No(s)/Mail Date 3/31/2004.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-20, drawn to a mouthguard, classified in class 128, subclass 861.
 - II. Claims 21-24, drawn to a method of making and sizing a mouthguard, classified in class 433, subclass 215.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make another and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product can be made using a different process, such as injection molding or co-extrusion.

3. Because these inventions are independent or distinct for the reasons given above and the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Beverly Bunting on 6/15/2006 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-20. Affirmation of this election must be made by applicant in replying to this Office action.

Art Unit: 3743

Claims 21-24 are withdrawn from further consideration by the examiner, 37

CFR 1.142(b), as being drawn to a non-elected invention.

Specification

5. The abstract of the disclosure is objected to because it is more than 150 words.

Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 4, 5, 7, 11, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Castaldi (US Patent 5,031,638).

8. Regarding claim 1, Castaldi discloses a mouthguard comprising an outer wall including a force absorbing inner layer (32), a force absorbing outer layer (36), and a force transmitting layer (34) positioned therebetween. The mouthguard also comprises lower and inner walls, each including said force absorbing inner layer and force absorbing outer layer.

9. Regarding claims 4 and 7, the force absorbing inner and outer layers are made of a class of approved materials having resilient, moldable, settable properties, and the

force transmitting layer is made of an approved composite material having force transmitting properties (column 3, lines 30-55).

10. Regarding claim 5, Castaldi discloses the force absorbing inner layer is formed of a material which is rigid below a first predetermined temperature and moldable above a second greater temperature (column 3, lines 30-40). Therefore, it is inherent that the layer has some chemical that enables the material to demonstrate this property.

11. Regarding claims 11 and 12, the force transmitting layer is a preformed strip.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

14. Claims 2, 6, 8-10, 13, and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Castaldi.

Art Unit: 3743

15. Regarding claims 2, 8-10, 13, 17, and 18, Castaldi discloses the claimed invention as applied to claim 1 above, but does not disclose that the force transmitting layer includes a plurality of longitudinally extending fibers disposed in a resinous matrix or the material of the fibers and resin. However, a thorough reading of the specification provides no criticality to the materials making up the force transmitting layer. At the time the invention was made, it would have been an obvious matter of design choice to one of ordinary skill in the art to have made the force transmitting layer of fibers disposed in a resinous matrix or any other selected material, because Applicant has not disclosed that such a material provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Castaldi's mouthguard and Applicant's invention to perform equally well with either the force transmitting layer used by Castaldi, or the claimed resinous matrix because both materials would perform the same function of transmitting force between the outer and inner force absorbing layers and protecting the teeth. Therefore, it would have been *prima facie* obvious to modify Castaldi to obtain the invention as specified in the claims because such a modification would have been considered a mere design consideration which fails to patentably distinguish over the prior art.

16. Regarding claim 15, Castaldi discloses the force absorbing inner layer is formed of a material which is rigid below a first predetermined temperature and moldable above a second greater temperature (column 3, lines 30-40). Therefore, it is inherent that the layer has some chemical that enables the material to demonstrate this property.

17. Regarding claims 19 and 20, Castaldi discloses a force transmitting layer formed as a strip, wherein the strip is preformed.

18. Regarding claims 6 and 16, Castaldi discloses the claimed invention as applied to claims 1 and 13 above, but does not disclose a gas-liberating chemical additive that liberates air bubbles. However, Applicant discloses that various types of chemical foaming agents are known in the art (p. 9, lines 14-16 of specification). Therefore, it would have been obvious to one having ordinary skill in the art to have provided the mouthguard of Castaldi with an inner layer having a chemical foaming agent, which Applicant admits is well known, to reduce the density of the mouthguard.

19. Claims 3 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Castaldi in view of Kallestad et al (US Patent 3,943,924). Castaldi substantially discloses the claimed invention as applied to claims 1 and 13 above, but does not disclose a palate protective wall. Kallestad et al. discloses a palate protective wall extending radially from the inner wall and conforming to the shape of the palate of the user (Figure 5). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the mouthguard disclosed by Castaldi having a palate protective wall, as taught by Kallestad et al, to provide protection to the palate.

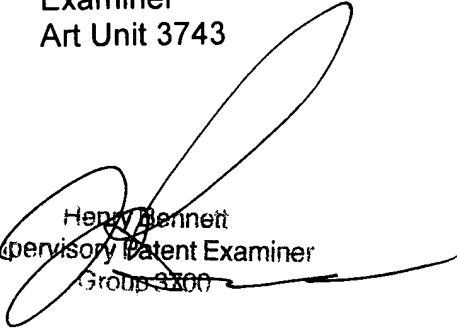
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kari Petrik whose telephone number is 571-272-8057. The examiner can normally be reached on M-Th 7-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Bennett can be reached on 571-272-4791. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kari Petrik
Examiner
Art Unit 3743

KKP



Henry Bennett
Supervisory Patent Examiner
Group 3800